

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Dr. Mark A. Murcko
Curriculum Vitae



Education

- 1987 Ph.D. Physical Organic Chemistry, Yale University, New Haven, CT.
1984 M.S. Organic Chemistry, Yale University, New Haven, CT :
1982 B.S. Summa Cum Laude, Chemistry, Fairfield University, Fairfield, CT.
Minor: Applied Math.

Employment History

- April 1987 - May 1990: Merck Sharp & Dohme Research Laboratories, West Point, PA.
May 1990 - present: Vertex Pharmaceuticals Incorporated, Cambridge, MA.

Publications

30. COMPUTATIONAL METHODS TO PREDICT BINDING FREE-ENERGY IN LIGAND-RECEPTOR COMPLEXES
AJAY; MURCKO MA
JOURNAL OF MEDICINAL CHEMISTRY, 1995, V38, P4953-4967
29. DESIGN, SYNTHESIS AND STRUCTURE OF NON-MACROCYCLIC INHIBITORS OF FKBP12, THE MAJOR BINDING-PROTEIN FOR THE IMMUNOSUPPRESSANT FK506
ARMISTEAD DM; BADIA MC; DEININGER DD; DUFFY JP; SAUNDERS JO; TUNG RD; THOMSON JA; DECENZO MT; FUTER O; LIVINGSTON DJ; MURCKO MA; YAMASHITA MM; NAVIA MA
ACTA CRYSTA SECTION D-BIOLOGICAL CRYSTALLOGRAPHY, 1995, V51, P522-528
28. COMPARATIVE X-RAY STRUCTURES OF THE MAJOR BINDING-PROTEIN FOR THE IMMUNOSUPPRESSANT FK506 (TACROLIMUS) IN UNLIGANDED FORM AND IN COMPLEX WITH FK506 AND RAPAMYCIN
WILSON KP; YAMASHITA MM; SINTCHAK MD; ROTSTEIN SH; MURCKO MA; BOGER J; THOMSON JA; FITZGIBBON MJ; BLACK JR; NAVIA MA
ACTA CRYSTA SECTION D-BIOLOGICAL CRYSTALLOGRAPHY, 1995, V51, P511-521
27. SOLVENT EFFECTS ON 1,2-DIHALOETHANE GAUCHE/TRANS RATIOS
WIBERG KB; KEITH TA; FRISCH MJ; MURCKO M
JOURNAL OF PHYSICAL CHEMISTRY, 1995, V99, P9072-9079
26. CRYSTAL-STRUCTURE OF HIV-1 PROTEASE IN COMPLEX WITH VX-478, A POTENT AND ORALLY BIOAVAILABLE INHIBITOR OF THE ENZYME
KIM EE; BAKER CT; DWYER MD; MURCKO MA; RAO BG; TUNG RD; NAVIA MA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1995, V117, P1181-1182

25. REVERSED STEREOCHEMICAL PREFERENCE IN BINDING OF RO-31-8959 TO HIV-1
PROTEINASE - A FREE-ENERGY PERTURBATION ANALYSIS
RAO BG; MURCKO MA
JOURNAL OF COMPUTATIONAL CHEMISTRY, 1994, V15, P1241-1253
24. THE SYNTHESIS AND EVALUATION OF PEPTIDYL ASPARTYL ALDEHYDES AS
INHIBITORS OF ICE
MULLICAN MD; LAUFFER DJ; GILLESPIE RJ; MATHARU SS; KAY D; PORRITT GM; EVANS
PL; GOLEC JMC; MURCKO MA; LUONG YP; RAYBUCK SA; LIVINGSTON DJ
BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 1994, V4, P2359-2364
23. STRUCTURE AND MECHANISM OF INTERLEUKIN-1-BETA CONVERTING-ENZYME
WILSON KP; BLACK JAF; THOMSON JA; KIM EE; GRIFFITH JP; NAVIA MA; MURCKO MA;
CHAMBERS SP; ALDAPE RA; RAYBUCK SA; LIVINGSTON DJ
NATURE, 1994, V370, P270-275
22. CONFORMATIONAL-ANALYSIS OF HIV PROTEASE INHIBITORS .1. ROTATION OF THE
AMIDE GROUP ADJACENT TO THE P-1(') DECAHYDROISOQUINOLINE RING-SYSTEM IN RO-
31-8959 AND RELATED SYSTEMS
MURCKO MA; RAO BG
JOURNAL OF COMPUTATIONAL CHEMISTRY, 1993, V14, P1446-1453
21. CONCEPTS - NEW DYNAMIC ALGORITHM FOR DE-NOVO DRUG SUGGESTION
PEARLMAN DA; MURCKO MA
JOURNAL OF COMPUTATIONAL CHEMISTRY, 1993, V14, P1184-1193
20. GROUDBUILD - A FRAGMENT-BASED METHOD FOR DENOVO DRUG DESIGN
ROTSTEIN SH; MURCKO MA
JOURNAL OF MEDICINAL CHEMISTRY, 1993, V36, P1700-1710
19. GENSTAR - A METHOD FOR DENOVO DRUG DESIGN
ROTSTEIN SH; MURCKO MA
JOURNAL OF COMPUTER-AIDED MOLECULAR DESIGN, 1993, V7, P23-43
18. ABINITIO MOLECULAR-ORBITAL CONFORMATIONAL-ANALYSIS OF PROTOTYPICAL
ORGANIC-SYSTEMS .1. ETHYLENE-GLYCOL AND 1,2-DIMETHOXYETHANE
MURCKO MA; DIPOLA RA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1992, V114, P10010-10018
17. CHARGED SURFACE RESIDUES OF FKBP12 PARTICIPATE IN FORMATION OF THE
FKBP12-FK506-CALCINEURIN COMPLEX
ALDAPE RA; FUTER O; DECENZO MT; JARRETT BP; MURCKO MA; LIVINGSTON DJ
JOURNAL OF BIOLOGICAL CHEMISTRY, 1992, V267, P16029-16032

16. CDNA-ENCODING MURINE FK506-BINDING PROTEIN (FKBP) - NUCLEOTIDE AND DEDUCED AMINO-ACID-SEQUENCES
NELSON PA; LIPPKE JA; MURCKO MA; ROSBOROUGH SL; PEATTIE DA
GENE, 1991, V109, P255-258

15. NEW ISOMERIC CLASSES OF TOPICALLY ACTIVE OCULAR HYPOTENSIVE CARBONIC-ANHYDRASE INHIBITORS - 5-SUBSTITUTED THIENO[2,3-B]THIOPHENE-2-SULFONAMIDES AND 5-SUBSTITUTED THIENO[3,2-B]THIOPHENE-2-SULFONAMIDES
PRUGH JD; HARTMAN GD; MALLORGA PJ; MCKEEVER BM; MICHELSON SR; MURCKO MA; SCHWAM H; SMITH RL; SONDEY JM; SPRINGER JP; SUGRUE MF
JOURNAL OF MEDICINAL CHEMISTRY, 1991, V34, P1805-1818

14. INHIBITION OF CARBONIC-ANHYDRASE
MERZ KM; MURCKO MA; KOLLMAN PA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1991, V113, P4484-4490

13. THE RESPONSE OF ELECTRONS TO STRUCTURAL-CHANGES
WIBERG KB; HADAD CM; BRENEMAN CM; LAIDIG KE; MURCKO MA; LEPAGE TJ
SCIENCE, 1991, V252, P1266-1272

12. ORIGIN OF THE GAUCHE EFFECT IN SUBSTITUTED ETHANES AND ETHENES
WIBERG KB; MURCKO MA; LAIDIG KE; MACDOUGALL PJ
JOURNAL OF PHYSICAL CHEMISTRY, 1990, V94, P6956-6959

11. THIENOTHIOPYRAN-2-SULFONAMIDES - NOVEL TOPICALLY ACTIVE CARBONIC-ANHYDRASE INHIBITORS FOR THE TREATMENT OF GLAUCOMA
BALDWIN JJ; PONTICELLO GS; ANDERSON PS; CHRISTY ME; MURCKO MA; RANDALL WC; SCHWAM H; SUGRUE MF; SPRINGER JP; GAUTHERON P; GROVE J; MALLORGA P; VIADER MP; MCKEEVER BM; NAVIA MA
JOURNAL OF MEDICINAL CHEMISTRY, 1989, V32, P2510-2513

10. ROTATIONAL BARRIERS .4. DIMETHOXYMETHANE - THE ANOMERIC EFFECT REVISITED
WIBERG KB; MURCKO MA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1989, V111, P4821-4828

9. ROTATIONAL BARRIERS .2. ENERGIES OF ALKANE ROTAMERS - AN EXAMINATION OF GAUCHE INTERACTIONS
WIBERG KB; MURCKO MA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1988, V110, P8029-8038

8. BOND BENDING AND HYBRIDIZATION
WIBERG KB; MURCKO MA
THEOCHEM-JOURNAL OF MOLECULAR STRUCTURE, 1988, V46, P355-365

7. EVIDENCE FOR THE DIRECT INVOLVEMENT OF THE RHINOVIRUS CANYON IN RECEPTOR-BINDING
COLONNO RJ; CONDRA JH; MIZUTANI S; CALLAHAN PL; DAVIES ME; MURCKO MA
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 1988, V85, P5449-5453

6. BARRIERS TO ROTATION ADJACENT TO DOUBLE-BONDS .4. EFFECT OF BASIS SET ON STRUCTURES, AND OF ELECTRON CORRELATION ON RELATIVE ENERGIES
WIBERG KB; MURCKO MA
JOURNAL OF COMPUTATIONAL CHEMISTRY, 1988, V9, P488-494

5. ROTATIONAL BARRIERS .3. 2-HALOETHANOLS
WIBERG KB; MURCKO MA
THEOCHEM-JOURNAL OF MOLECULAR STRUCTURE, 1988, V40, P1-17

4. AN ABINITIO STUDY OF DIAZOETHENE, A PROPADIENONE ISOELECTRONIC WITH A BENT STRUCTURE
MURCKO MA; POLLACK SK; LAHTI PM
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1988, V110, P364-368

3. NONBONDED INTERACTIONS .1. ANISOTROPIC HYDROGEN-HYDROGEN INTERACTIONS
WIBERG KB; MURCKO MA
JOURNAL OF COMPUTATIONAL CHEMISTRY, 1987, V8, P1124-1130

2. ROTATIONAL BARRIERS .1. 1,2-DIHALOETHANES
WIBERG KB; MURCKO MA
JOURNAL OF PHYSICAL CHEMISTRY, 1987, V91, P3616-3620

1. ENTHALPIES OF HYDRATION OF ALKENES .3. CYCLOALKENES
WIBERG KB; WASSERMAN DJ; MARTIN EJ; MURCKO MA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1985, V107, P6019-6022